

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Mark Ciasullo

Serial No.:

Group Art Unit:

Filed : Herewith

Examiner:

Title : GOLF CLUB HEAD

Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Attn: Group Director, Group ____ (MPEP § 1002.02(c))

PETITION TO MAKE SPECIAL FOR NEW APPLICATION
UNDER MPEP § 1002.02, VIII

1. Petition

Applicant hereby petitions to make this new application, which has not received any examination by the examiner, special.

2. Claims

Check and complete all applicable items (a) through (c).

- (a) X All the claims in this case are directed to a single invention.
- (b) X If the Office determines that all the claims presented are not obviously directed to a single invention applicant will make an election without traverse as a prerequisite to the grant of special status.
- (c) If claim(s) are found not to be examinable in this case with claim(s) applicant hereby elects claim(s) for the prosecution of this case.

3. Search

Check all applicable items (d) through (g).

A search has been made by

- (d) ☐ the inventor
- (e) ☒ attorney
- (f) ☐ professional searcher
- (g) ☐ foreign patent office

in the following:

complete all applicable items below

- (h) ☒ field of search: Class 473, subclasses 324, 334, 345, 346, 349 and 350; also preformed keyword search on EAST system
- (i) ☒ publications: searched available public records in the Examiners' Search Room for Class 273, subclasses 167R, 167F, 167H, 169 and 173
- (j) ☒ foreign patents: searched available records in the Examiners' Search Room for Class 273, subclasses 167R, 167F, 167H, 169 and 173; also searched JPO and EPO databases
- (k) ☐ search by corresponding foreign patent office or at the former International Patent Institute at The Hague, Netherlands

4. Copy of references

There is submitted herewith a copy of the references deemed most closely related to the subject matter encompassed by the claims.

☒ Also attached is Form PTO-1449

5. Detailed discussion of the references

There is submitted herewith a detailed discussion of the references which discussion particularly points out how the claimed subject matter is distinguishable over the references.

NOTE: As to other references not treated above an Information Disclosure Statement should be filed.

NOTE: Where there is an intentnion of overcoming one of the references by a declaration under 37 CFR 1.131 the declaration must be submitted before the application is taken up for action, but in no event later than one month after the request for special status. MPEP § 708.02, VIII.

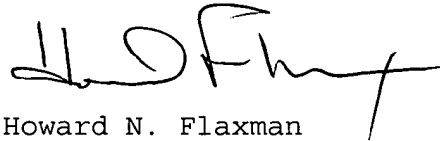
X Also attached is an Information Disclosure Statement.

6. **Fee**

The fee required by 37 CFR 1.17(i)(2) is to be paid by

X the attached check for \$130.00
_____ charging Deposit Account 01-2221 the sum of \$130.00. A duplicate of this petition is attached.

Respectfully submitted,



Howard N. Flaxman
Registration No. 34,595

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Docket No. LIT-013-DIV2CON

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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DETAILED DISCUSSION OF REFERENCES IN ACCORDANCE
WITH MPEP § 1002.02, VIII

Further to the Petition to Make Special attached hereto, Applicant states as follows:

U.S. Patent No. 1,946,208 to Hampton discloses a method of coating articles, for example, a golf club. The golf club includes insert studs 5 and a block weight 8. However, Hampton fails to disclose or suggest a golf club including “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 3,951,326 to Johansson et al. discloses an apparatus for explosion welding. The patent describes the methods for explosion welding structural metals together. However, Johansson et al. fail to disclose or suggest a golf club having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 4,021,047 to Mader discloses a golf club driver. The driver includes a cap which may be fabricated of wood or plastic. However, Mader neither discloses nor suggests a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate

member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 4,061,261 to Fredriksson et al. discloses a portable tool for detonating blasting charges on a work piece. This patent neither discloses nor suggests the claimed golf club head.

U.S. Patent No. 4,391,403 to Persson discloses a method of explosion welding. This patent neither discloses nor suggests the claimed golf club head.

U.S. Patent No. 4,432,549 to Zebelean discloses a metal golf driver. The driver includes first and second parts of cast metal. The weight of the driver is distributed to reduce torque and or deflection. The mass is distributed so that it increases from the top side toward the sole side and from the heel end toward the toe. However, Zebelean fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having an overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 4,496,096 to Persson discloses a method of joining metal elements by explosion welding. Persson fails to disclose a golf club head as claimed.

U.S. Patent No. 4,762,322 to Molitor et al. discloses a golf club head having the center of gravity positioned at a specific location. However, Molitor et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having an overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 4,925,084 to Persson discloses a method of explosion welding alloy aluminum. However, Persson fails to disclose or suggest the claimed golf club head.

U.S. Patent No. 5,056,705 to Wakita et al. discloses a method of manufacturing a golf club head wherein at least a part of the golf club head is integrally precision cast in titanium or an alloy thereof. In addition, Wakita et al. disclose the utilization of a rearwardly positioned weight. However, Wakita et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having an overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,232,224 to Zeider discloses a metal wood type golf club head made from several components welded together along parting lines. However, Zeider fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,255,913 to Tsuchida discloses a wood golf club head having a crown made of a material of a rigidity lower than that of the material forming the other sections of the club head. However, Tsuchida fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,328,176 to Lo discloses a composite golf club head which is made of a carbon fiber composite material. However, Lo fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,346,217 to Tsuchiya et al. discloses a wood type golf club head having a highly specific face construction. However, Tsuchiya et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,423,535 to Shaw et al. discloses a golf club head having face plates of varying specific gravities. However, Shaw et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,429,357 to Kobayashi discloses a multi component golf club head. However, Kobayashi fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having an overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,464,216 to Hoshi et al. discloses a composite golf club head made up of several shell components united along their mating edges. However, Hoshi et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having an overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,485,998 to Kobayashi discloses a golf club head composed of multiple components. The components are chosen to enlarge the sweet area. However, Kobayashi fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having an overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,501,459 to Endo discloses a golf club head having a denser balance weight positioned on the sole portion. However, Endo fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having an overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,518,240 to Igarashi discloses a golf wood club head fabricated in two half sections. Igarashi fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having an overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,531,444 to Buettner discloses a golf club head coated with a hard and attractive coating of titanium nitride. However, Buettner fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,533,729 to Leu discloses a golf club head including a top cover shell, a bottom shell, and a face plate. However, Leu fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,547,427 to Rigal et al. discloses a golf club head having a hollow plastic body and a metallic sealing element. The body includes a weight 9 positioned at a rearward location. However, Rigal et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,556,097 to Endo et al. discloses a hollow club head with a welded hosel. However, Endo et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,570,886 to Rigal et al. discloses a golf club head having an inner sub assembly and an outer casing. The club head further includes a rearwardly positioned weight 9. However, Rigal et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,620,652 to Tack et al. discloses the utilization of aluminum alloys containing scandium with or without zirconium additions. The alloys are especially adapted for use in recreational and athletic structures. However, Tack et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,624,331 to Lo et al. discloses a composite metal golf club head. The composite covers are positioned within openings formed in the crown of the club head. However, Lo et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,637,045 to Igarashi discloses a hollow wood type golf club head with a vibration dampening mechanism formed therein. However, Igarashi fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,658,207 to Aizawa et al. discloses a golf club head. The club head includes a high specific gravity sole plate secured thereto. However, Aizawa et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,669,825 to Shira discloses a method of making a golf club head comprising forming one or more components of a golf club head from sintered metal powder and then joining the components by welding, brazing or diffusion or adhesive bonding. However, Shira fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater

than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,669,827 to Nagamoto discloses a metal wood golf club head having a shell structure made up of a plurality of shell pieces united together. However, Nagamoto fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,720,674 to Galy discloses a golf club head having a crown 3, a sole plate 11, a belt 4 and a hitting surface 2. However, Galy fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,755,624 to Helmstetter discloses a selectively balanced golf club head. However, Helmstetter fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,755,627 to Yamazaki et al. discloses a metal hollow golf club head with an integrally formed neck. However, Yamazaki et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,766,091 to Humphrey et al. discloses a composite golf club head having a high density insert. However, Humphrey et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,839,975 to Lundberg discloses a golf club head having a specific arcuate reinforcing rib construction. However, Lundberg fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,871,408 to Chen discloses a method for fusing a ball striking plate with a golf club head case. However, Chen fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,888,148 to Allen discloses a golf club head with an internal power shaft that extends along the target line. However, Allen fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,916,042 to Reimers discloses an adjustable balanced weighting system for a golf club. However, Reimers fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 5,921,872 to Kobayashi discloses a golf club head having a crown constructed so as to improve the strength thereof. However, Kobayashi fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”. In addition, based upon the Rule 131 Declarations filed in the parent of this application (copy attached) this patent is believed to be predated.

U.S. Patent No. 5,967,904 to Nagai et al. discloses a golf club head comprising a face and a

body wherein at least the face is made of a rapidly solidified aluminum based alloy having a high strength, high elasticity and light weight. However, Nagai et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

U.S. Patent No. 6,010,411 to Reyes discloses a golf club head composed of multiple layers of loaded film used to define the overall weight, center of gravity and inertial characteristics of the golf club head. However, Reyes fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”. In addition, based upon the Rule 131 Declarations filed in the parent of this application (copy attached) this patent is believed to be predated.

U.S. Patent No. 6,099,414 to Kusano et al. discloses a golf club head having high and low specific gravity metals bonded via various welding techniques, including, explosion welding. However, Kusano et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”. In addition, based upon the Rule 131 Declarations filed in the parent of this application (copy attached) this patent is believed to be predated.

U.S. Patent No. 6,123,627 to Antonious discloses a metal wood type golf club head including a reinforcing outer support band which provides additional strength and mass on outer surfaces of the club head. The club head further includes an elongated weighted insert formed with the reinforcing band. However, Antonious fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”. In addition, based upon the Rule 131 Declarations filed in the parent of this application (copy attached) this patent is believed to be predated.

U.S. Patent No. 6,162,130 to Masumoto et al. discloses a golf club head comprising a face

portion and a main body portion, wherein at least the face portion or a face of the face portion comprises an amorphous alloy having a glass transition range. However, Masumoto et al. fail to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”. In addition, based upon the Rule 131 Declarations filed in the parent of this application (copy attached) this patent is believed to be predated.

U.S. Patent No. 6,315,678 to Teramoto discloses golf clubs and golf clubs sets including weights which control the effective loft angle of the club head. Teramoto fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”. In addition, based upon the Rule 131 Declarations filed in the parent of this application (copy attached) this patent is believed to be predated.

U.S. Patent No. 6,354,962 to Galloway et al. discloses a golf club head with a face composed of a forge material. The patent includes a crown 62. However, Galloway et al. fail disclose or a suggest a golf club having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”. In addition, based upon the Rule 131 Declarations filed in the parent of this application (copy attached) this patent is believed to be predated.

U.S. Patent No. 6,491,592 to Cackett et al. discloses a multi-material golf club head. However, and based upon the ‘131 Declaration filed in the parent of the present application, the present invention predates the disclosed invention.

Japanese Patent No. 10099473, discloses a metal wood golf club head wherein the components of the sole plate are explosion welded. However, the ‘473 patent fails to disclose or suggest a golf club head having “a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member”.

Japanese Patent No. 10151231, discloses a golf club head employing explosion welding to bonds specific components. However, the '231 patent fails to disclose or suggest a golf club head having "a top plate member being composed of a second material structure distinct from the first material structure, the material structure of a top plate member having a overall density less than the first material structure of the sole plate member, wherein the top plate member includes at least one high density component having a density greater than the overall density of the top plate member, the high density component being positioned rearwardly along the top plate member".